

REMARKS

This paper is responsive to a Non-Final Office action dated October 4, 2006. Claims 1-63 were examined. Claim 40 stands rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the enablement requirement. Claims 61-63 stand rejected under 35 U.S.C. § 112, second paragraph, for being indefinite. Claims 1, 2, 7, 8, 18, 21-25, 28-30, 36-39, 41, 42, 52, 53, and 59 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,847,282 to Gomez et al. Claims 3-5, 31-33, and 43-46 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gomez. Claims 9-17, 19, 20, 26-28, 34, 35, 48-51, 54-58, and 60 stand objected to as being dependent upon a rejected base claim.

Claim Rejections Under 35 U.S.C. § 112, first paragraph

Claim 40 stands rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the enablement requirement. The Office states that there is no disclosure of how the computer-readable medium is used to encode the integrated product circuit, nor is there disclosure of the type of encoding or purpose of the coding. Applicants respectfully maintain that the Office action fails to establish a *prima facie* case of lack of enablement. See MPEP § 2164.04. Applicants respectfully point out that in a written enablement rejection,

[t]he language should focus on those factors, reasons, and evidence that lead the examiner to conclude that the specification fails to teach how to make and use the claimed invention without undue experimentation, or that the scope of any enablement provided to one skilled in the art is not commensurate with the scope of protection sought by the claims. This can be done by making specific findings of fact. For example, doubt may arise about enablement because information is missing about one or more essential parts or relationships between parts which one skilled in the art could not develop without undue experimentation. In such a case, the examiner should specifically identify what information is missing and why one skilled in the art could not supply the information without undue experimentation. See MPEP § 2164.06(a). References should be supplied if possible to support a *prima facie* case of lack of enablement, but are not always required. *In re Marzocchi* 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971). However, specific technical reasons are always required.

MPEP § 2164.04 (emphasis added).

However, Applicants respectfully maintain that claim 40 satisfies the requirements of 35 U.S.C. § 112, first paragraph. Applicants respectfully point the Examiner to at least paragraph 1076 of the specification, which states:

While circuits and physical structures are generally presumed, it is well recognized that in modern semiconductor design and fabrication, physical structures and circuits may be embodied in computer readable descriptive form suitable for use in subsequent design, test or fabrication stages. Accordingly, claims directed to traditional circuits or structures may, consistent with particular language thereof, read upon computer readable encodings and representations of same, whether embodied in media or combined with suitable reader facilities to allow fabrication, test, or design refinement of the corresponding circuits and/or structures. Structures and functionality presented as discrete components in the exemplary configurations may be implemented as a combined structure or component. The invention is contemplated to include circuits, systems of circuits, related methods, and computer-readable medium encodings of such circuits, systems, and methods, all as described herein, and as defined in the appended claims. As used herein, a computer readable medium includes at least disk, tape, or other magnetic, optical, semiconductor (e.g., flash memory cards, ROM), or electronic medium and a network, wireline, wireless or other communications medium.

Paragraph 1076. Accordingly, Applicants respectfully maintain that claim 40 satisfies the requirements of 35 U.S.C. § 112, first paragraph. For at least these reasons, Applicants request that the rejection of claim 40 be withdrawn.

Claim Rejections Under 35 U.S.C. § 112, second paragraph

Claims 61-63 stand rejected under 35 U.S.C. § 112, second paragraph, for being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The Office fails to point out where the indefiniteness resides in claims 61-63. See MPEP § 707.07(d).

However, Applicants respectfully maintain that claims 61-63 satisfy the requirements of 35 U.S.C. § 112, second paragraph. Exemplary structures corresponding to limitations of claim 61 are described in at least Figures 5A, 5B, and 8, and associated portions of the specification. For example, referring to FIG. 5A, inductor structure 525 corresponds to the “means for electrically coupling” limitation, top-plate 502, sidewalls 504 and 548, support structures 556 and 550, metal layer 534, and conductive via 536 are formed in redistribution layers, which

correspond to the “means for routing” limitation, and top-plate 502, sidewalls 504 and 548, bottom plate 508, metal layer 534, conductive via 536, and sidewall portions 554 and 552 correspond to the “means for electromagnetically shielding” limitation. Thus, claim 61 satisfies the requirements of 35 U.S.C. § 112, second paragraph. See MPEP § 2181.III. Accordingly, Applicants respectfully request that the rejection of claim 61 be withdrawn.

Exemplary structures corresponding to the “means for reducing” limitation of claim 62 are described in at least FIG. 9C (e.g., aperture 902) and FIG. 10 (e.g., aperture 1002) and associated portions of the specification. Thus, claim 62 satisfies the requirements of 35 U.S.C. § 112, second paragraph. See MPEP § 2181.III. Accordingly, Applicants respectfully request that the rejection of claim 62 be withdrawn.

Exemplary structures corresponding to limitations of claim 63 are described in at least Figures 5A, 5B, and 8 and associated portions of the specification. For example, referring to FIG. 5A, top-plate 502, sidewalls 504 and 548, bottom plate 508, metal layer 534, conductive via 536, and sidewall portions 554 and 552 correspond to the “means for shielding” limitation. Thus, claim 63 satisfies the requirements of 35 U.S.C. § 112, second paragraph. See MPEP § 2181.III. Accordingly, Applicants respectfully request that the rejection of claim 63 be withdrawn.

Claim Rejections Under 35 U.S.C. § 102

Claims 1, 2, 7, 8, 18, 21-25, 28-30, 36-39, 41, 42, 52, 53, and 59 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,847,282 to Gomez et al., (hereinafter, “Gomez”). Regarding claim 1 Applicants respectfully maintain that Gomez, alone or in combination with other references of record fails to teach or suggest that

the electromagnetic shielding structure is formed at least partially in one or more redistribution layers formed on an integrated circuit die,

as required by claim 1. Gomez teaches a substrate having a plurality of layers. Col. 3, lines 28-38. However, the Office fails to point out where Gomez teaches or suggests, and Applicants respectfully maintain that nowhere does Gomez teach or suggest redistribution layers or that an

electromagnetic shielding structure is formed at least partially in one or more redistribution layers, as required by claim 1. Accordingly, Applicants respectfully request that the rejection of claim 1 be withdrawn.

Regarding claim 29 Applicants respectfully maintain that Gomez, alone or in combination with other references of record fails to teach or suggest that

electromagnetically shielding at least one circuit element formed on an integrated circuit die by substantially surrounding the circuit element with an electrically conductive enclosure formed at least partially in one or more redistribution layers formed on the integrated circuit die,

as required by claim 29. Gomez teaches a substrate having a plurality of layers. Col. 3, lines 28-38. However, the Office fails to point out where Gomez teaches or suggests, and Applicants respectfully maintain that nowhere does Gomez teach or suggest redistribution layers or that an electrically conductive enclosure is formed at least partially in one or more redistribution layers, as required by claim 29. Accordingly, Applicants respectfully request that the rejection of claim 29 be withdrawn.

Regarding claim 41 Applicants respectfully maintain that Gomez, alone or in combination with other references of record fails to teach or suggest that

forming an electromagnetic shielding structure at least partially in one or more redistribution layers formed on an integrated circuit die, the electromagnetic shielding structure substantially surrounding a circuit element,

as required by claim 41. Gomez teaches a substrate having a plurality of layers. Col. 3, lines 28-38. However, the Office fails to point out where Gomez teaches or suggests, and Applicants respectfully maintain that nowhere does Gomez teach or suggest redistribution layers or forming an electromagnetic shielding structure at least partially in one or more redistribution layers, as

required by claim 41. Accordingly, Applicants respectfully request that the rejection of claim 41 be withdrawn.

Claim Rejections Under 35 U.S.C. §103

Claims 3-5, 31-33, and 43-46 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gomez. Applicants respectfully maintain that claims 5, 31-33, and 43-46 depend from allowable base claims and are allowable for at least this reason.

Regarding claim 3, the Office action fails to provide a reference of record that teaches or suggests that

the redistribution layers are formed above a
passivation layer of the integrated circuit die,

as required by claim 3 and thus impermissibly introduces hindsight into the obviousness analysis. In particular, the Office action implies that it would be obvious to form the electromagnetic shielding structure at least partially in redistribution layers above a passivating material since it is desirable to protect the underlying printed circuit board. Applicants respectfully point out that the Office “cannot simply reach conclusions based on its own understanding or experience-- or on its assessment of what would be the basic knowledge or common sense. Rather, the [Office] must point to some concrete evidence in the record to support these findings.” See *In re Zurko*, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001) (alteration in original). Since Gomez fails to disclose or suggest the recited limitation and no other art of record adds the missing disclosure, Applicants respectfully request that the rejection of claim 3 be withdrawn.

Regarding claim 4, the Office action fails to provide a reference of record that teaches or suggests that

the redistribution layers are formed above integrated
circuit pads,

as required by claim 4 and thus impermissibly introduces hindsight into the obviousness analysis. In particular, the Office action implies that it would be obvious to form the electromagnetic

shielding structure at least partially in redistribution layers above integrated circuit pads since it is desirable to provide reliable connection to the underlying printed circuit board. Applicants respectfully point out that the Office "cannot simply reach conclusions based on its own understanding or experience-- or on its assessment of what would be the basic knowledge or common sense. Rather, the [Office] must point to some concrete evidence in the record to support these findings." See In re Zurko, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001) (alteration in original). Since Gomez fails to disclose or suggest the recited limitation and no other art of record adds the missing disclosure, Applicants respectfully request that the rejection of claim 4 be withdrawn.

Allowable Subject Matter

Applicants appreciate the indication of allowable subject matter in claims 9-17, 19, 20, 26-28, 34, 35, 48-51, 54-58, and 60. Applicants believe that claims 9-17, 19, 20, 26-28, 34, 35, 48-51, 54-58, and 60 depend from allowable base claims and are allowable for at least this reason.

Additional Remarks

In summary, all claims are believed to be allowable over the art of record, and a Notice of Allowance to that effect is respectfully solicited. Nonetheless, if any issues remain that could be more efficiently handled by telephone, the Examiner is requested to call the undersigned at the number listed below.

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Respectfully submitted,



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